

WE CLAIM:

1. A method for replacing an antisoiling coating on an article, said method comprising:
  - 5 providing an article comprising an optical substrate, an antireflective coating disposed on a surface of the optical substrate, and a previously applied antisoiling coating comprising silicon that is disposed on at least a portion of the antireflective coating, wherein the antireflective coating is between the optical substrate and the antisoiling coating;
  - 10 treating the article with a plasma under vacuum conditions to remove the previously applied antisoiling coating; and
  - disposing a new antisoiling coating on the antireflective coating of the article.
- 15 2. The method of claim 1, wherein the pressure during said treating is in the range of 0.05 to 0.5 mm Hg.
3. The method of claim 1, wherein the plasma during said treating has a radio frequency power less than about 30 watts.
- 20 4. The method of claim 1, wherein said treating leaves the antireflective coating and the optical substrate intact.
5. The method of claim 1, wherein said treating removes less than 500 Å of the previously applied antisoiling coating from the article.
- 25 6. The method of claim 1, wherein said treating removes less than 100 Å of the previously applied antisoiling coating from the article.
- 30 7. The method of claim 1, further comprising washing the article, placing the article in an ultrasonic bath, chemically treating the article, or a combination thereof prior to said treating.
8. The method of claim 1, wherein the article is an optical lens.

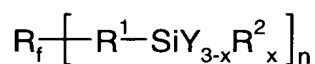
9. The method of claim 1, wherein the article is an ophthalmic lens.
10. The method of claim 1, wherein the antireflective coating comprises a metal  
oxide, metal sulfide, metal halide, metal nitride, or combination thereof.
11. The method of claim 1, wherein the antireflective coating comprises at least one  
metal oxide layer.
12. The method of claim 11, wherein an outer layer of the antireflective coating  
comprises silicon oxides.
13. The method of claim 1, wherein the plasma is produced using argon, xenon, air,  
water, oxygen, or a combination thereof.
14. The method of claim 1, wherein the plasma is produced using air.
15. The method of claim 1, wherein the previously applied coating has a static  
water contact angle of at least 80 degrees.
16. The method of claim 1, wherein the previously applied antisoiling coating  
comprises a siloxane.
17. The method of claim 1, wherein the new antisoiling coating is hydrophobic,  
oleophobic, or a combination thereof.
18. The method of claim 1, wherein the new antisoiling coating comprises a  
fluorinated alkylsiloxane, fluorinated dialkylsiloxane, perfluoropolyether  
siloxane, or combination thereof.
19. The method of claim 1, wherein said disposing comprises:  
providing a solution of a fluorinated silane or fluorinated siloxane  
precursor in an inert solvent;

immersing a plasma treated article into the solution.

20. The method of claim 19, wherein the inert solvent is an alkyl perfluoroalkyl ether.

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21. The method of claim 19, wherein the fluorinated silane precursor comprise a compound having a molecular weight of at least about 400, said compound being of formula I:



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I

wherein

$R_f$  is a fluorinated group that optionally contains one or more heteroatoms;

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$R^1$  is a substituted divalent alkylene group, arylene group, or mixture thereof that optionally contains one or more heteroatoms, wherein at least one substituent comprises a heteroatom, a functional group, or a halogen;

$R^2$  is a  $C_{1-4}$  alkyl;

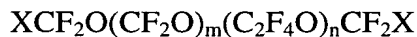
Y is a halogen, a  $C_{1-4}$  alkoxy, or a  $C_{1-4}$  acyloxy group;

x is equal to 0 or 1; and

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n is equal to 1 or 2.

22. The method of claim 19, wherein the fluorinated silane precursor comprises a perfluoropolyether of formula



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wherein

X is equal to  $-\text{CONH}-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{Si}(\text{OCH}_3)_3$ ;

m is an integer of 8 to 11;

n is an integer of 8 to 11; and

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23. The method of claim 1, wherein said disposing comprises:  
placing a fluorinated silane or fluorinated siloxane precursor on a fabric;

transferring the fluorinated silane or fluorinated siloxane precursor from the fabric to a surface of a plasma treated article.

- 5      24.      The method of claim 1, further comprising acid activating a surface of a plasma treated article prior to said disposing.
25.      The method of claim 1, further comprising curing the new antisoiling coating.